

CLAIMS

1. A battery terminal configured to be secured to a battery case comprising:
- 5 a terminal assembly extending along a main axis and including an insert having a threaded bore and an outer metal portion having a base with an annular flange configured to engage an inner surface of the case;
- 10 a ring configured to be disposed over said terminal assembly; and an anti-rotation system including a first set of angularly-spaced bosses with intervening slots formed on an outer surface of the case, a second set of angularly-spaced bosses with intervening slots on a first side of said ring facing said case and which are complementary with said first set of bosses and slots, and a set of recesses on a second side of said ring opposite said first side configured to receive portions of said terminal assembly.
2. The battery terminal of claim 1 wherein said portions of said terminal assembly to be received into said set of recesses comprise end portions of an annular wall of said terminal assembly.
3. The battery terminal of claim 2 wherein said annular wall is at least in part deformed into said set of recesses.
4. The battery terminal of claim 3 wherein said annular wall is orbitally spin riveted.
5. The battery terminal of claim 1 wherein said outer metal portion of said terminal assembly comprises lead.

6. The battery terminal of claim 1 further including a sealing system, said sealing system comprising:

an annular groove circumferentially-extending in said flange on a side configured to engage said inner surface of said case;

5 an elastomeric seal configured to be disposed in said groove to form a seal between said inner surface of said case and said terminal assembly; and

a sealant material disposed between said first side of said ring and said case.

7. The battery terminal of claim 6 wherein said sealant material comprises a hot melt material.

8. The battery terminal of claim 1 further including communication means for allowing a fluid to communicate between an interior of said case and said groove.

9. The battery terminal of claim 8 wherein said communication means comprises a plurality of radially oriented bores extending from a radially outer surface of said base of said terminal assembly to said groove.

10. The battery terminal of claim 1 wherein said ring and terminal assembly are welded together.

11. A battery terminal configured to be secured to a battery case comprising:

- a terminal assembly extending along a main axis and including an insert having a threaded bore and an outer metal portion having a base with an annular flange configured to engage an inner surface of the case;
- a ring configured to be disposed over said terminal assembly;
- an anti-rotation system including a first set of angularly-spaced bosses with intervening slots formed on an outer surface of the case, a second set of angularly-spaced bosses with intervening slots on a first side of said ring facing said case and which are complementary with said first set of bosses and slots, and a set of recesses on a second side of said ring opposite said first side configured to receive portions of said terminal assembly;
- a sealing system, including,
  - an annular groove circumferentially extending in said flange on a side configured to engage said inner surface of said case,
  - an elastomeric seal configured to be disposed in said groove to form a seal between said inner surface of said case and said terminal assembly,
  - a sealant material disposed between said first side of said ring and said outer surface of said case; and
  - communication means for allowing a fluid to communicate between an interior of said case and said groove.

12. A battery terminal configured to be secured to a battery case comprising:

- a terminal assembly extending along a main axis and including (i) an insert having a threaded bore and (ii) an outer metal portion having a base with an annular flange configured to engage an inner surface of the case; and
- a ring configured to be disposed over said terminal assembly against an outer surface of the case;
- wherein said terminal assembly and said ring are welded.